

Docket No.: GR 97

APR 13 2000

Receipt

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By: 

Date: April 6, 2000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Hansjorg Reichert et al.  
Appl. No. : 09/483,737  
Filed : January 14, 2000  
Title : Method and Apparatus for Producing a Chip-Substrate Connection  
Art Unit : 2811

LETTER

Hon. Commissioner of Patents and Trademarks,  
Washington, D.C. 20231

Sir:

Undersigned counsel has received the Filing Receipt for the above-identified application.

However, the continuing information has been listed incorrectly and should be listed as:

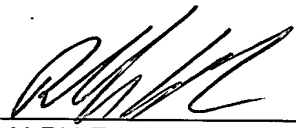
**THIS APPLN IS A CON OF PCT/DE98/01737 06/24/98**

The priority information has been listed incorrectly and should be listed as:

**FED REP GERMANY 197 30 118.5 07/14/97**

It is respectfully requested that the Patent Office Records be changed and that a new Filing Receipt be issued, so that the printed patent will show the correct priority and continuing information.

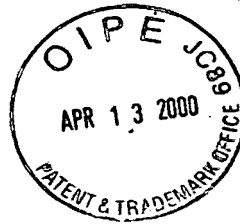
Respectfully submitted,

  
RALPH E. LOCHER  
REG NO. 41,947

/av

Date: April 6, 2000  
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GR 97 P 1903

METHOD AND APPARATUS FOR PRODUCING A CHIP-SUBSTRATE CONNECTION5 Cross-Reference to Related Application:

This is a continuation of copending International Application PCT/DE98/01737, filed June 24, 1998, which designated the United States.

10 Background of the Invention:Field of the Invention:

The invention relates to a method and an apparatus for producing a chip-substrate connection by alloying or brazing, using a solder with a two metal-containing constituents X and Y, the first constituent X containing in particular gold or a similar precious metal. The invention furthermore relates to a solder for the production of a chip-substrate connection, and to a semiconductor component with a semiconductor chip which is secured to a substrate by alloying or brazing.

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When a rear side of a semiconductor chip is joined to a substrate, which is usually referred to as chip or die bonding, the requirements with regard to sufficient mechanical fixing and also good thermal and electrical conductivity must be fulfilled individually or jointly, depending on the application. An important factor is the compatibility of the

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TC 2830 MAIL ROOM

Docket No.: GR 97 P 1903

**COMBINED DECLARATION AND POWER OF ATTORNEY  
IN ORIGINAL APPLICATION**

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**METHOD AND APPARATUS FOR PRODUCING A CHIP-SUBSTRATE  
CONNECTION**

described and claimed in the specification bearing that title, that I understand the content of the specification, that I do not know and do not believe the same was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve month prior to this application, that I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application under 37 C.F.R. 1.56a, and that no application for patent or inventor's certificate of this invention has been filed earlier than the following in any country foreign to the United States prior to this application by me or my legal representatives or assigns:

German Application No. 197 30 118.5, filed July 14, 1997, the International Priority of which is claimed under 35 U.S.C. §119; and International Application No. PCT/DE98/01737, filed June 24, 1998, the Priority of which is claimed under 35 U.S.C. §120.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

HERBERT L. LERNER (Reg.No.20,435)  
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APR 13 2000

## CORRECTED FILING RECEIPT



\*OC000000005016273\*

UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark OfficeAddress: ASSISTANT SECRETARY AND  
COMMISSIONER OF PATENT AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/483,737	01/14/2000	2811	690	GR-97-P-1903	1	16	3

Lerner And Greenberg PA  
P O Box 2480  
Hollywood, FL 33022-2480

Date Mailed: 03/29/2000

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

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Margarete Deckers, Munchen, GERMANY;  
Rainer Zanner, Munchen, GERMANY;

## Continuing Data as Claimed by Applicant

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MAR 31 2000

## Foreign Applications

GERMANY 197 30 118.5 07/14/1997  
PCT PCT/DE98/01737 07/14/1997  
06/24/1998

PCT ← Should be here

If Required, Foreign Filing License Granted 02/25/2000

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## Title

Method And Apparatus For Producing A Chip-Substrate Connection

## Preliminary Class

257

Data entry by : NIGRO, LOREN

Team : OIPE

Date: 03/29/2000





**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

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**NOT GRANTED**

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**PLEASE NOTE the following information about the Filing Receipt:**

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 600 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."

Any corrections that may need to be done to your Filing Receipt should be directed to:

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Office of Initial Patent Examination  
Customer Service Center  
Washington, DC 20231